

Claims

1. An optical member of a liquid crystal display device, the optical member comprising:

5 an optical body for varying an optical characteristic of a first light incident into the optical body to exit a second light; and

a first fixing part protruded from at least one side face of the optical body, the first fixing part including a fixing hole and a vibration attenuating means, the fixing hole allowing an movement of the optical body in accordance with an expansion and a contraction of the optical body, and the vibration attenuating means
10 formed on an inner surface of the fixing hole to attenuate an external vibration applied to the optical body.

2. The optical member as claimed in claim 1, wherein the first fixing part
15 is formed on two side faces of the optical body, and the two side faces are opposite to each other.

3. The optical member as claimed in claim 1, wherein the vibration attenuating means includes at least one vibration attenuating protrusion, and the at
20 least one vibration attenuating protrusion is protruded from the inner surface of the fixing hole toward a center of the fixing hole.

4. The optical member as claimed in claim 3, wherein at least one through-hole is formed on a portion of the first fixing part, and the portion is
25 disposed near the fixing hole.

5. The optical member as claimed in claim 3, wherein at least one

through-hole is formed on a portion of the first fixing part, and the portion is spaced apart from the fixing hole by a predetermined distance.

6. The optical member as claimed in claim 1, wherein the first fixing part
5 is formed on a first side face of the optical body and a second fixing part is formed on a second side face of the optical body, and the second side face is opposite to the first side face.

7. The optical member as claimed in claim 6, wherein the second fixing
10 part includes a cylindrical hole, and at least two fixing protrusions are protruded from an inner surface of the cylindrical hole toward a center of the cylindrical hole.

8. The optical member as claimed in claim 7, wherein the fixing hole is
15 an elongated hole having a long axis in a main expansion direction of the optical body.

9. A backlight assembly comprising:

a receiving container including i) a bottom face, ii) sidewalls protruded
from edges of the bottom face to provide a receiving space, iii) a recess respectively
20 formed on an upper portion of two opposite sidewalls of the receiving container, and
iv) a fixing boss formed on a bottom surface of the recess and projected in parallel
to the sidewalls;

a lamp, received in the receiving container, for generating a first light;

a first optical member, coupled to the lamp, for varying an optical
25 characteristic of the first light to exit a second light; and

a second optical member including i) an optical body for varying the
optical characteristic of the second light incident into the optical body to exit a third

light, and ii) a first fixing part protruded from at least one side face of the optical body, the first fixing part including a fixing hole and a first vibration attenuating means, and the vibration attenuating means formed on a first inner surface of the fixing hole and the first fixing part to attenuate an external vibration applied to the optical body.

10. The backlight assembly as claimed in claim 9, wherein the first vibration attenuating means includes at least one vibration attenuating protrusion, and the at least one vibration attenuating protrusion is protruded from the inner surface of the fixing hole toward a center of the fixing hole to contact with a portion of an outer surface of the fixing boss.

11. The backlight assembly as claimed in claim 10, wherein a second vibration attenuating means is formed on the outer surface of the fixing member to contact with the vibration attenuating protrusion.

12. The backlight assembly as claimed in claim 11, wherein the second vibration attenuating means includes at least one protrusion, the at least one protrusion is formed on the outer surface of the fixing boss to attenuate a vibration.

13. The backlight assembly as claimed in claim 9, wherein the first fixing part is formed on a first side face of the optical body and a second fixing part is formed on a second side face of the optical body, and the second side face is opposite to the first side face.

14. The backlight assembly as claimed in claim 13, wherein the second fixing part includes a cylindrical hole, and at least two fixing protrusions are

protruded from an inner surface of the cylindrical hole toward a center of the cylindrical hole.

15 15. The backlight assembly as claimed in claim 9, wherein a tip of the fixing boss has a tapered shape.

16. The backlight assembly as claimed in claim 9, wherein at least one through-hole is formed on portions of the first fixing part, and each of the portions is adjacent to the first vibration attenuating means.

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17. A liquid crystal display device comprising:

15 a receiving container including i) a bottom face, ii) sidewalls protruded from edges of the bottom face to provide a receiving space, iii) a recess respectively formed on an upper portion of two opposite sidewalls of the receiving container, and iv) a fixing boss formed on a bottom surface of the recess and projected in parallel to the sidewalls;

an optical module including a lamp and a first optical member, the lamp received in the receiving container to generate a first light, and the first optical member varying an optical characteristic of the first light to exit a second light;

20 a second optical member including i) an optical body for varying the optical characteristic of the second light incident into the optical body to exit a third light, and ii) a first fixing part protruded from at least one side face of the optical body, the first fixing part including a fixing hole and a first vibration attenuating means, the fixing hole being elongated in a main expansion direction of the optical body to receive the fixing boss, and the vibration attenuating means being formed on
25 an inner surface of the fixing hole to attenuate an external vibration applied to the optical body;

a liquid crystal display panel assembly, disposed on the second optical member to be received in the receiving container, for changing the third light into a fourth light having image information; and

5 a chassis, coupled to the receiving container on which the liquid crystal display panel assembly is received, for preventing the liquid crystal display panel assembly from being separated from the receiving container.

18. The liquid crystal display device as claimed in claim 17, wherein the first vibration attenuating means includes at least one vibration attenuating protrusion, and the at least one vibration attenuating protrusion is protruded from the
10 inner surface of the fixing hole to contact with an outer surface of the fixing boss.

19. The liquid crystal display device as claimed in claim 17, wherein the first fixing part is formed on a first side face of the optical body and a second fixing
15 part is formed on a second side face of the optical body, and the second side face is opposite to the first side face.

20. The liquid crystal display device as claimed in claim 19, wherein the second fixing part includes a cylindrical hole, and at least two fixing protrusions are
20 protruded from an inner surface of the cylindrical hole toward a center of the cylindrical hole.